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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,501	04/19/2004	Susumu Aoyama	040075	1350
23850 7590 08/04/2008 KRATZ, QUINTOS & HANSON, LLP 1420 K Street, N.W. Suite 400 WASHINGTON, DC 20005				
EXAMINER				
WHIPKEY, JASON T				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/826,501

Applicant(s)

AOYAMA ET AL.

Examiner

Jason T. Whipkey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-16 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 22, 2008, has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 3-10, and 12-16 have been considered but are moot in view of the new grounds of rejection.
3. Applicant's arguments, see page 17, filed May 22, 2008, with respect to claim 2 have been fully considered and are persuasive. The rejection of claim 2 has been withdrawn.
4. Applicant's arguments filed May 22, 2008, regarding claim 11 have been fully considered but they are not persuasive.

On page 25 of the remarks, Applicant argues that "the focus mark displayed in claim 11 represents a distance between a pictured object and the optical system, the display pattern in lida '507 merely represents size of a zone for the focus detection and alarm that the focus detection is

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impossible.” This is incorrect. In column 13, lines 51-59, Iida discloses that the display blinks based on a distance.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 13 and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Claims 13 and 14 have been amended to recite, “A computer readable recording medium storing a photographing control program”. However, the specification is silent with regard to any sort of recording medium storing a program.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 3, 4, 6-8, 10, and 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Robins (U.S. Patent No. 6,549,729).

Regarding **claim 1**, Robins discloses an electronic device (such as a digital camera; see Figure 1 and column 1, lines 63-67) having an optical system (lens 101) for capturing an image comprising:

a focusing mechanism (see column 2, line 1) for moving said optical system to an auto-focusing position (see column 2, lines 45-51) or a fixed focus position (a hyperfocal distance; see column 5, lines 22-25);

a switch (shutter release button 117) that functions as a focusing switch (via switch S1 115; see column 2, lines 45-51) and also functions as a shutter switch (via switch S2 116; see column 2, lines 61-65), wherein said switch when operated orders a focusing action (see column 2, lines 45-51) or orders capturing of the image (see column 2, lines 61-65); and

a controller (logic unit 110) that decides whether the optical system is in a final lens position or not during a focusing action of said focusing mechanism due to said switch (the system determines whether all of the camera's pre-photograph activities, including focus, have been completed; see column 4, lines 56-65), and in the case where a shutter operation of said switch is performed under a state that the optical system is not in the final lens position (if the focusing has not finished;

see column 4, lines 61-65), shifts said optical system to a fixed focus position from an auto-focusing position and takes a fixed focus image (see column 5, lines 11-25).

Regarding **claim 3**, Robins discloses:

said switch is provided as a first switch (115; see Figure 1), and a switch which is used in photographing by a fixed focus is also provided as a second switch (116; see column 2, lines 61-65) separated from the first switch.

Regarding **claim 4**, Robins discloses:

said switch functions as said focusing switch at a state of a half-push and functions as said shutter switch at a state of a full-push (see column 2, lines 31-65).

Regarding **claim 6**, Robins discloses an electronic device (such as a digital camera; see Figure 1 and column 1, lines 63-67) having an optical system (lens 101) for capturing an image comprising:

a focusing mechanism (see column 2, line 1) for moving said optical system to an auto-focusing position (see column 2, lines 45-51) or a fixed focus position (a hyperfocal distance; see column 5, lines 22-25);

a switch (shutter release button 117) that functions as a focusing switch (via switch S1 115; see column 2, lines 45-51) and also functions as a shutter switch (via switch S2 116; see column 2, lines 61-65), wherein said switch according to a condition of operation orders a focusing action (see column 2, lines 45-51) or the capturing of the image (see column 2, lines 61-65); and

a controller (logic unit 110) that decides whether the optical system is in a final lens position or not during a focusing action of said focusing mechanism due to said switch (the system determines whether all of the camera's pre-photograph activities, including focus, have been completed; see column 4, lines 56-65), and in the case where a shutter operation of said switch is performed under a state that the optical system is not in the final lens position (if the focusing has not finished; see column 4, lines 61-65) takes an image at a focus position in the middle of the focusing action (during the process of focusing, the lens is moved to correspond to the hyperfocal distance; see column 5, lines 11-25).

Regarding **claim 7**, Robins discloses:

said switch is provided as a first switch (115; see Figure 1), and a switch which is used in photographing by a fixed focus is also provided as a second switch (116; see column 2, lines 61-65) separated from the first switch.

Regarding **claim 8**, Robins discloses:

said switch functions as said focusing switch at a state of a half-push and functions as said shutter switch at a state of a full-push (see column 2, lines 31-65).

Regarding **claim 10**, Robins discloses a photographing control method of an electronic device (such as a digital camera; see Figure 1 and column 1, lines 63-67) having an imaging part which catches an image obtained through an optical system (lens 101; see *id.*), and a focusing mechanism (see column 2, line 1) which moves said optical system to an auto-focusing position

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(see column 2, lines 45-51) or a fixed focus position (a hyperfocal distance; see column 5, lines 22-25), comprising:

a process that detects a shutter operation in the middle of a focusing action of said focusing mechanism (see column 2, lines 61-65);

a process that decides whether the optical system is in a final lens position or not during a focusing action of the focusing mechanism (the system determines whether all of the camera's pre-photograph activities, including focus, have been completed; see column 4, lines 56-65);

a process that detects said shutter operation and, if the optical system is not in the final lens position (if the focusing has not finished; see column 4, lines 61-65), switches to said fixed focus position from said auto-focusing position of said optical system under the focusing action (see column 5, lines 11-25); and

a process that takes a fixed focus image caught at said fixed focus (see *id.*).

Regarding **claim 12**, Robins discloses a photographing control method of an electronic device (such as a digital camera; see Figure 1 and column 1, lines 63-67) having an imaging part which catches an image obtained through an optical system (lens 101; see *id.*), and a focusing mechanism (see column 2, line 1) which moves said optical system to an auto-focusing position (see column 2, lines 45-51) or a fixed focus position (a hyperfocal distance; see column 5, lines 22-25), comprising:

a process that detects a shutter operation in the middle of a focusing action of said focusing mechanism (see column 2, lines 61-65);

a process that decides whether the optical system is in a final lens position or not during a focusing action of the focusing mechanism (the system determines whether all of the camera's pre-photograph activities, including focus, have been completed; see column 4, lines 56-65);

a process that detects said shutter operation and, if the optical system is not in the final lens position (if the focusing has not finished; see column 4, lines 61-65), takes an auto-focusing image caught by said imaging part in the middle of the focusing action (during the process of focusing, the lens is moved to correspond to the hyperfocal distance; see column 5, lines 11-25).

Regarding **claim 13**, Robins discloses a computer readable recording medium (inherently present, as a control program is run on the camera's microprocessor; see column 4, lines 53-65) storing a photographing control program (see *id.*) of an electronic device (such as a digital camera; see Figure 1 and column 1, lines 63-67) having an imaging part which catches an image obtained through an optical system (lens 101; see *id.*), and a focusing mechanism (see column 2, line 1) which moves said optical system to an auto-focusing position (see column 2, lines 45-51) or a fixed focus position (a hyperfocal distance; see column 5, lines 22-25), the control program comprising:

a step that detects a shutter operation in the middle of a focusing action of said focusing mechanism (see column 2, lines 61-65);

a step that decides whether the optical system is in a final lens position or not during a focusing action of the focusing mechanism (the system determines

whether all of the camera's pre-photograph activities, including focus, have been completed; see column 4, lines 56-65);

a step that detects said shutter operation and, if the optical system is not in the final lens position (if the focusing has not finished; see column 4, lines 61-65), switches to said fixed focus position from said auto-focusing position of said optical system under the focusing action (see column 5, lines 11-25); and

a step that takes a fixed focus image caught at said fixed focus (see *id.*).

Regarding **claim 14**, Robins discloses a computer readable recording medium (inherently present, as a control program is run on the camera's microprocessor; see column 4, lines 53-65) storing a photographing control program (see *id.*) of an electronic device (such as a digital camera; see Figure 1 and column 1, lines 63-67) having an imaging part which catches an image obtained through an optical system (lens 101; see *id.*), and a focusing mechanism (see column 2, line 1) which moves said optical system to an auto-focusing position (see column 2, lines 45-51) or a fixed focus position (a hyperfocal distance; see column 5, lines 22-25), the control program comprising:

a step that detects a shutter operation in the middle of a focusing action of said focusing mechanism (see column 2, lines 61-65);

a step that decides whether the optical system is in a final lens position or not during a focusing action of the focusing mechanism (the system determines whether all of the camera's pre-photograph activities, including focus, have been completed; see column 4, lines 56-65);

a step that detects said shutter operation and, if the optical system is not in the final lens position (if the focusing has not finished; see column 4, lines 61-65), takes an auto-focusing image caught by said imaging part in the middle of the focusing action (during the process of focusing, the lens is moved to correspond to the hyperfocal distance; see column 5, lines 11-25).

Regarding **claim 15**, Robins discloses an integrated circuit (a microprocessor; see column 4, lines 54-56) to which an imaging part catching an image obtained through an optical system (lens 101; see *id.*) and a focusing mechanism (see column 2, line 1) moving said optical system to an auto-focusing position (see column 2, lines 45-51) or a fixed focus position (a hyperfocal distance; see column 5, lines 22-25) are connected externally (microprocessors are inherently self-contained), comprising:

a detection part that detects a shutter operation in the middle of a focusing action of said focusing mechanism (see column 2, lines 61-65); and

a control part (logic unit 110) that decides whether the optical system is in a final lens position or not (the system determines whether all of the camera's pre-photograph activities, including focus, have been completed; see column 4, lines 56-65) and, on the basis of a detection of said detection part, switches to said fixed focus position from said auto-focusing position of said optical system under the focusing action and takes a fixed focus image caught at said fixed focus if the optical system is not in the final lens position (see column 4, lines 61-65, and column 5, lines 11-25).

Regarding **claim 16**, Robins discloses an integrated circuit (a microprocessor; see column 4, lines 54-56) to which an imaging part catching an image obtained through an optical system (lens 101; see *id.*) and a focusing mechanism (see column 2, line 1) moving said optical system to an auto-focusing position (see column 2, lines 45-51) or a fixed focus position (a hyperfocal distance; see column 5, lines 22-25) are connected externally (microprocessors are inherently self-contained), comprising:

a detection part that detects a shutter operation in the middle of a focusing action of said focusing mechanism (see column 2, lines 61-65); and

a control part (logic unit 110) that decides whether the optical system is in a final lens position or not (the system determines whether all of the camera's pre-photograph activities, including focus, have been completed; see column 4, lines 56-65) and takes an auto-focusing image in the middle of the focusing action (during the process of focusing, the lens is moved to correspond to the hyperfocal distance; see column 5, lines 11-25) based on a detection of said shutter operation of said detection part if the optical system is not in the final lens position (see column 4, lines 61-65).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robins in view of Terasaki (U.S. Patent No. 7,119,843)

Claims 5 and 9 can be treated like claims 1 and 6, respectively. However, Robins is silent with regard to the device having two housing parts that fold up.

Terasaki discloses an imaging device, including:

a first housing part (arm 6 in Figure 5) that has said imaging part (imaging optical system 4);

a second housing part (phone body 1) that has said switch (shutter button 12; see column 5, lines 8-13); and

a coupling part (hinge 5) that couples said first housing part and said second housing part so that the first and second housing parts can be folded up (see column 4, lines 19-29).

Combining the imaging device disclosed by Robins with the imaging device shape disclosed by Terasaki would have yielded the predictable result of producing a device can be carried compactly. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Robins's system include two housing parts that fold up, as described by Terasaki.

12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robins in view of Iida (U.S. Patent No. 5,001,507).

Claim 11 can be treated like claim 10. However, Robins is silent with regard to superimposing a focusing mark on an image display.

Iida discloses an imaging device, including:

a process that superimposes a focusing mark (42 and 43 in Figure 10) representative of a distance between a pictured object and the optical system on an image, in the middle of said focusing action, which is caught by said imaging part, and displays it (on a viewfinder; see column 13, lines 47-61).

Combining the imaging method disclosed by Robins with the image display function disclosed by Iida would have yielded the predictable result of providing an operator with more information when composing an image, thus resulting in an improved output. For this reason, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have Robins's system include a focusing mark on an image display.

Allowable Subject Matter

13. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding **claim 2**, no prior art could be located that teaches or renders obvious an electronic device with an optical system, wherein a controller compares between a time required for bringing into focus a focusing mechanism and a time from starting of a focusing action until starting of a shutter operation, and changes the optical system to an autofocus position or a fixed focus position based on a result of the comparison.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

Higashihara (U.S. Patent No. 5,061,951) discloses an autofocus camera that interrupts processing that starts after switch SW1 when switch SW2 is pressed (see Figure 5).

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Whipkey, whose telephone number is (571) 272-7321. The examiner can normally be reached Monday through Friday from 9:30 A.M. to 6 P.M. eastern daylight time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye, can be reached at (571) 272-7372. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason T. Whipkey/
Examiner, Art Unit 2622